

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1.-10. (Canceled)

11. (Currently Amended) A honeycomb structure comprising:

a plurality of honeycomb segments each of which has a plurality of cells surrounded and defined by porous partition walls to form a honeycomb structure as a whole,
and

~~a plurality of cells each functioning~~ each of the cells functions as a passage of a fluid, ~~surrounded by the porous partition walls and~~ and is arranged so as to be parallel to each other in the ~~a~~ central axis direction of the honeycomb structure,

~~characterized in that a plurality of honeycomb segments having such a shape that each segment is part of the honeycomb structure and, when bonded to each other in a direction normal to the central axis of the honeycomb structure, forms the honeycomb structure, are bonded integrally wherein each segment is bonded integrally at least at its two outer partition walls to other adjacent segments by a bonding material containing a ceramic as a main component and a particulate filler in a direction normal to the central axis direction to form the honeycomb structure.~~

the bonding material containing a ceramic as a main component, and a foamed resin having an average particle diameter of 25 to 250 μ m and being contained in 25 to 65 volume percents with relation to total volume of the bonding material, the foamed resin promoting coatability and spreadability of the bonding material by virtue of rollability of the foamed resin,

whereby the bonding material with the foamed resin has less suppression in shrinkage caused by dehydration, and is substantially free from peeling and cracking.

12-14. (Canceled)

15. (Previously Presented) A honeycomb structure according to Claim 11, wherein the bonding material further contains at least one member selected from the group consisting of inorganic particles, an oxide fiber and a colloidal oxide.

16. (Currently Amended) A honeycomb structure comprising:

a plurality of honeycomb segments each of which has a plurality of cells surrounded and defined by porous partition walls, and to form a honeycomb structure as a whole;

a plurality of cells each functioning each of the cells functions as a passage of a fluid, surrounded by the porous partition walls and and is arranged so as to be parallel to each other in the a central axis direction of the honeycomb structure, each segment being bonded integrally at least at its two outer partition walls to other adjacent segments by a bonding material containing a ceramic as a main component;

characterized in that a plurality of honeycomb segments having such a shape that each segment is part of the honeycomb structure and, when bonded to each other in a direction normal to the central axis of the honeycomb structure, forms the honeycomb structure, are bonded integrally by a bonding material and the resulting bonded body is coated, at the outer surface, with a coating material containing a ceramic as a main component and a particulate filler, an outer wall formed of a plurality of segments bonded with the bonding material, the outer wall being ground; and

a surface coat layer formed on an outer surface of the outer wall,
wherein the surface coat layer has a coating material containing a ceramic as a main component, and a foamed resin having an average particle diameter of 15 to 250 μm and being contained in 25 to 65 volume percents with relation to total volume of the coating material, the foamed resin promoting coatability and spreadability of the coating material and

coating material and promoting suitable viscosity of the coating material for coating,
whereby the surface coat layer is substantially free from small holes, cracks
and fractions in its surface.

17-19. (Canceled)

20. (Previously Presented) A honeycomb structure according to Claim 16, wherein the coating material further contains at least one member selected from the group consisting of inorganic particles, an oxide fiber and a colloidal oxide.

21. (New) A honeycomb structure according to claim 11, wherein an amount of the foamed resin used in the bonding material is 0.5 to 4 percents by weight.

22. (New) A honeycomb structure according to claim 11, wherein the bonding material has a bonding strength of 1.2 MPa or more.

23. (New) A honeycomb structure according to claim 16, wherein an amount of the foamed resin used in the coating material is 0.5 to 4 percents by weight.

24. (New) A honeycomb structure according to claim 16, wherein the coating material has a bonding strength of 1.2 MPa or more.